

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. When strikethrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered). Please AMEND claims 2-17 in accordance with the following:

1. (Cancelled)

2. (Currently Amended) A three-dimensional object display system to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the system comprising:

an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a three-dimensional space data production unit searching the object data storage unit, calculating coordinate values of a three-dimensional space in which to position each object based on the object attribute values selected from the object attributes of each object according to results of the search of the object data storage unit, and producing three-dimensional space data displaying each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the three-dimensional space data production unit encloses each of the objects positioned in the apparent three-dimensional space display within a frame of a uniform size and reduces or enlarges the frame and the objects enclosed therein depending on a distance of the three-dimensional space from a vantage point outside the three-dimensional space, ~~where~~and wherein the uniform size of the frame is determined based on a number of articles to be displayed, ease of viewing when displayed, and overall balance.

3. (Currently Amended) A three- dimensional object display system to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the system comprising:

an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a three-dimensional space data production unit searching the object data storage unit, calculating coordinate values of a three-dimensional space in which to position each object based on the object attribute values selected from the object attributes of each object according to results of the search of the object data storage unit, and producing three-dimensional space data displaying each object according to results of the calculation of the coordinate values for the three-dimensional space, wherein the three-dimensional space data production unit disperses positional coordinates of each object and reduces the display size of each object positioned within the apparent three-dimensional space display preventing object data to be displayed in an overlapped state when the objects have identical or contiguous coordinates and when a distance of the three-dimensional space from a vantage point is within a range,

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

4. (Currently Amended) A three-dimensional object display system to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the system comprising:

an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a three-dimensional space data production unit searching the object data storage unit, calculating coordinate values of a three-dimensional space in which to position each object based on the object attribute values selected from the object attributes of each object according to results of the search of the object data storage unit, and producing three-dimensional space data displaying each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the three-dimensional space data production unit comprises:

a dividing unit dividing the three-dimensional space into movable planes or solid spaces;

and

a display unit selecting and highlighting object data positioned within the divided planes or solid spaces, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

5. (Currently Amended) A three-dimensional object display system to display objects in an apparent three-dimensional space display, comprising:

a server providing object information, the server comprising
an object data storage unit storing information corresponding to the object attributes and displaying data for each object, and

a three-dimensional space data production unit searching the object data storage unit, positioning the object data in three-dimensional space by matching values for three types of object attributes selected from the object attributes stored in the object-data storage unit for each object to each of three coordinate axes in three-dimensional space, and displaying the object according to a predetermined vantage point; and

a client terminal selecting an object from the object information provided, the client terminal comprising

a notifying unit selecting the object attributes of a displayed object and ~~notifies~~notifying the server,

a receiving unit receiving the three-dimensional space data produced by the server, and

a vantage point changing unit changing the vantage point with respect to the displayed three-dimensional space,

wherein the server and the client terminal are connected to the system via a network, and when the vantage point is changed, the three-dimensional space data production unit redraws the object according to the changed vantage point, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

6. (Currently Amended) A three-dimensional object display method displaying objects in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the method comprising:

searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

producing three-dimensional space data to position each object by calculating coordinate values for the three-dimensional space in which to position each object based on the object attribute values selected from the object attributes for each object according to results of the search of the object data storage unit so as to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein each of the objects positioned in the apparent three-dimensional space display is enclosed within a frame of a uniform size and the frame and the objects enclosed therein are reduced or enlarged depending on a distance of the three-dimensional space from a vantage point outside the three-dimensional space, and

wherein the uniform size of the frame is determined based on a number of articles to be displayed, ease of viewing when displayed, and overall balance.

7. (Currently Amended) A computer-readable medium storing program code causing a computer to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the program comprising:

a first program code unit searching an object data storage unit that stores information corresponding to the object attributes and displaying data for each object; and

a second program code unit producing three-dimensional space data to position each object by calculating coordinate values for the three-dimensional space based on the object attribute values selected from the object attributes for each object, according to results of the search of the object data storage unit so as to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the second program code unit encloses each of the objects positioned in the apparent three-dimensional space display within a frame of a uniform size and reduces or enlarges the frame and the objects enclosed therein depending on a distance of the three-dimensional space from a vantage point outside the three-dimensional space, and

wherein the uniform size of the frame is determined based on a number of articles to be displayed, ease of viewing when displayed, and overall balance.

8. (Currently Amended) A computer-implemented method causing objects to be displayed in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the method comprising:

searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

producing three-dimensional space data to position each object by calculating coordinate values for the three-dimensional space in which to position each object based on the object attribute values selected from the object attributes of each object, according to results of the search of the object data storage unit so as to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein each of the objects positioned in the apparent three-dimensional space display is enclosed within a frame of a uniform size and the frame and the objects enclosed therein are reduced or enlarged depending on a distance of the three-dimensional space from a vantage point outside the three-dimensional space, and

wherein the uniform size of the frame is determined based on a number of articles to be displayed, ease of viewing when displayed, and overall balance.

9. (Currently Amended) A computer specially configured by executing program code stored on a computer-readable medium causing objects to be displayed in an apparent three-dimensional space display according to object attributes used as criteria to select one or more objects, the program comprising:

a first program code unit searching an object data storage unit storing information corresponding to the object attributes and to display data for each object; and

a second program code unit for producing three-dimensional space data to position each object by calculating coordinate values for the three-dimensional space based on the object attribute values selected from the object attributes of each object, according to results of the search of the object data storage unit so as to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the second program code unit encloses each of the objects positioned in the apparent three-dimensional space display within a frame of a uniform size and reduces or enlarges the frame and the objects enclosed therein depending on a distance of the three-dimensional space from a vantage point outside the three-dimensional space, and

wherein the uniform size of the frame is determined based on a number of articles to be displayed, ease of viewing when displayed, and overall balance.

10. (Currently Amended) A three-dimensional object display method to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the method comprising:

searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object;

producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space; and

dispersing positional coordinates of each object positioned within the apparent three-dimensional space display to reduce a display size of each object to prevent object data to be displayed in an overlapped state,

wherein the objects have identical or contiguous coordinates so that a distance of the three-dimensional space from a vantage point is within a range, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of a uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

11. (Currently Amended) A three-dimensional object display method to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the method comprising:

searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the three-dimensional space is divided into movable planes or solid spaces to select and highlight object data positioned within the divided planes or solid spaces, and wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of a uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

12. (Currently Amended) A computer-readable medium storing program code for causing a computer to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the program comprising:

a first program code unit searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a second program code unit producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the second program code unit disperses positional coordinates of each object positioned within the apparent three-dimensional space display to reduce a display size of each object to prevent object data to be displayed in an overlapped state, and the objects have identical or contiguous coordinates so that a distance of the three-dimensional space from a vantage point is within a range, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

13. (Currently Amended) A computer-readable medium storing program code for causing a computer to display objects in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the program comprising:

a first program code unit searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a second program code unit producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is

positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the second program code unit comprises:

program code unit dividing the three-dimensional space into movable planes or solid spaces, and

program code unit selecting and highlighting object data positioned within the divided planes or solid spaces, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

14. (Currently Amended) A computer-implemented method causing objects to be displayed in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the method comprising:

searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object;

producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space; and

dispersing positional coordinates of each object positioned within the apparent three-dimensional space display to reduce a display size of each object to prevent object data to be displayed in an overlapped state,

wherein the objects have identical or contiguous coordinates so that a distance of the three-dimensional space from a vantage point is within a range, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

15. (Currently Amended) A computer-implemented method causing objects to be displayed in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the method comprising:

searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

producing three-dimensional space data to position each object by calculating coordinate values for at three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the three-dimensional space is divided into movable planes or solid spaces to select and highlight object data positioned within the divided planes or solid spaces, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

16. (Currently Amended) A computer configured by executing program code stored on a computer-readable medium causing objects to be displayed in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the program comprising:

a first program code unit searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a second program code unit producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the second program code unit disperses positional coordinates of each object positioned within the apparent three-dimensional space display to reduce a display size of each object to prevent object data to be displayed in an overlapped state, and the objects have identical or contiguous coordinates so that a distance of the three-dimensional space from a vantage point is within a range, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.

17. (Currently Amended) A computer specially configured by executing program code stored on a computer-readable medium causing objects to be displayed in an apparent three-dimensional space display according to object attributes used as criteria to select at least one object, the program comprising:

a first program code unit searching an object data storage unit storing information corresponding to the object attributes and displaying data for each object; and

a second program code unit producing three-dimensional space data to position each object by calculating coordinate values for a three-dimensional space in which each object is positioned based on object attribute values selected from the object attributes of each object, and based on results of the search of the object data storage unit to display each object according to results of the calculation of the coordinate values for the three-dimensional space,

wherein the second program code unit comprises:

program code unit dividing the three-dimensional space into movable planes or solid spaces, and

program code unit selecting and highlighting object data positioned within the divided planes or solid spaces, and

wherein each object positioned in the apparent three-dimensional space display is enclosed within a frame of uniform size, the uniform size based on a number of articles to be displayed, ease of viewing when displayed and overall balance.